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 TI Composition and method for stabilizing clays in the cementing of oil and gas boreholes
 IN Borchardt, John; Smith, Charles
 PA Halliburton Co., USA
 SO Ger. Offen., 62 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC E21B033-138; C04B007-35; C04B013-24; C04B025-04
 CC 58-1 (Cement, Concrete, and Related Building Materials)
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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3213799 ✓	A1	19821104	DE 1982-3213799	19820415
	AU 8282648	A1	19821028	AU 1982-82648	19820415
	AU 544388	B2	19850523		
	GB 2098196	A	19821117	GB 1982-11114	19820416
	GB 2098196	B2	19850116		
	NO 8201261	A	19821021	NO 1982-1261	19820419
	NL 8201619	A	19821116	NL 1982-1619	19820419
	BR 8202240	A	19830329	BR 1982-2240	19820419
	JP 57190075	A2	19821122	JP 1982-64871	19820420
PRAI	US 1981-255963	A	19810420		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3213799	IC	E21B033-138IC C04B007-35IC C04B013-24IC C04B025-04

AB **Cement** containing cationic organic polymers is used to fill zones bordering permeable clay soil formations and to stabilize the clay in the permeable formations. The polymer has mol. weight 400 to (6 + 106) and contains cationic N, P, and/or S heteroatoms. The amount of polymer added to the **cement** suspensions is such that the filtrate contains ≥ 0.1 weight% polymer. These **cement** slurries, used for cementation in oil and gas boreholes, cause less impairment of the permeability by swelling and dissociation of the clay and migration from the water in the slurry. Thus, the flow rates of brines, fresh water, and HCl solns. through packed sands were determined before and after treating the sand with liquid filtered under pressure from slurries of the polymer-modified **cement**. The flow rates of brine containing 8.47 weight% mixed salts, fresh water, a 15% HCl solution, and fresh water at 22° and .apprx.3.5 bar were determined in sequence with the initial flow of brine defined as 100%. With diallyldimethylammonium chloride polymer [26062-79-3], the 4 resp. flow rates were 112.0, 156.5, 119.6, and 133.6% compared to 17.4, 1.8%, 0, and 0 for acrylamide copolymer with 2-acrylamido-2-methylpropanesulfonic acid, a conventional liquid loss inhibitor, which indicated rapid early flow and then complete blocking of flow.

ST **cationic polymer** well **cement**; oil well **cement**; gas well **cement**

IT **Cement**
 (cationic polymers in, for oil and gas wells, for permeable clay formation stabilization)

IT Petroleum wells
 (cement for, containing cationic polymers for permeable clay formation stabilization)

IT Natural gas
 RL: USES (Uses)